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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/806,486

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Reza Kassayan

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EXAMINER

ROANE, AARON F

ART UNIT

PAPER NUMBER

3769

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/806,486	<b>Applicant(s)</b> KASSAYAN, REZA	
	<b>Examiner</b> Aaron Roane	<b>Art Unit</b> 3769	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11, 18-29, 34-41 and 48-53 is/are pending in the application.
- 4a) Of the above claim(s) 5, 9, 35 and 39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-4, 6-8, 10, 11, 18-29, 34, 36-38, 40, 41 and 48-53 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 6-8, 10, 11, 18-29, 34, 36-38, 40 and 41 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 and 25 of copending Application No. 10/856,186. Although the conflicting claims are not identical, they are not patentably distinct from each other because they encompass essentially the same invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-8, 10, 11, 18-29, 34, 36-38, 40, 41 and 48-53 are rejected under 35 U.S.C. 102(b) as being anticipated by vanHooydonk (USPN 5,902,251).

Regarding claims 1, 3, 8, 10, 11, 18,19, 34, 38 and 40, vanHooydonk discloses a probe (16 and any alternate/equivalent counterparts in other embodiments) for generating an electromagnetic field, comprising: a generator (12, see col. 6:15-28 and figure 1) adapted to provide a first current signal having a frequency and a second current signal having a frequency, a first conductor (a first one of the coaxial cables 14 of corresponding antenna 18, see col. 7-8 and 14-16) for receiving a first current signal having a frequency; a second conductor (a second one of the coaxial cables 14 of corresponding antenna 18, see col. 7-8 and 14-16) for receiving a second current signal having a frequency; a first radiation coil (the coil 58 of first 14/18 , see col. 7-8 and 14-16) coupled to the first conductor for radiating a first electromagnetic field based on the first current signal; and a second radiation coil (the coil 58 of second 14/18 , see col. 7-8 and 14-16) coupled to the second conductor for radiating a second electromagnetic field based on the second current signal, the first and second electromagnetic fields causing an interferential

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electromagnetic field pattern (see col. 3:46 - col. 4:3 wherein microwave generation/radiation is disclosed. Any two microwave radiating antennas provide an interference pattern), wherein the frequency of the second current signal is equal to, or a substantially perfect multiple of, the frequency of the first current signal and/or the first current signal and the second current signal are in phase or out of phase, see col. 6-9 and 14-16 and figures 1-12B. With specific reference to claim 3, all cables 14 are coaxial and any embodiment of device/probe 16 having more than one antenna 14/18 is nested as all the antennas are within one device/probe. With specific reference to claim 19, col. 14:33-59 and figure 9A disclose 6 nested coaxial conductors.

Regarding claims 2, 4, vanHooydonk discloses the claimed invention, wherein the grounding is inherent given the generator/power source, see col. 6-9 and 14-16 and figures 1-12B.

Regarding claims 6 and 36, vanHooydonk further discloses the first radiation coil and the second radiation coil are in perpendicular planes, see figures 10 and 11.

Regarding claims 7 and 37, vanHooydonk further discloses the probe has a diameter of about 7mm, see col. 6-16 and figures 1-12B.

Regarding claims 20-26, vanHooydonk discloses the claimed invention, see col. 6-16 and figures 1, 2, 9A, 9B and 10.

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Regarding claim 27, vanHooydonk discloses the claimed invention, see claim 17.

Regarding claims 28, 29 and 41, vanHooydonk discloses the claimed invention. The conductors of vanHooydonk are perfectly capable of performing the recited intended use.

Regarding claim 48, vanHooydonk discloses the claimed invention, as all cables 14 are coaxial cables comprises inner conductors (“central conductor” 56), an intermediate dielectric (52) and an outer conductor, wherein either the inner or outer conductor is coupled to ground, see col. 7:47 – col. 8:7 and figure 2.

Regarding claim 49, vanHooydonk discloses the first radiation coil surrounds the second radiation coil and, the probe further comprising an isolating material between the first and second conductors, see col. 15:21-43 and figure 11.

Regarding claims 50-53, vanHooydonk discloses the claimed invention, as each cable/antenna is contained in a lumen (passageway) of the device which is made of silicon (dielectric), see col. 3:50 – col. 5: 11 and col. 8:50-67. The claim explicitly recites “cooling fluid passageway” or “fluid passageway” which the examiner is broadly interpreting as passageway or lumen. Although operational characteristics of an apparatus may be apparent from the specification, we will not read such characteristics into the claims when they cannot be fairly connected to the structure recited in the claims. See *In re Self*, 671 F.2d 1344, 1348, 213 USPQ 1, 5 (CCPA 1982). See *In re Prater*, 415

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F.2d 1393, 162 USPQ 541 (CCPA 1969) and In re Winkhaus, 527 F.2d 637, 188 USPQ 129 (CCPA 1975).

### ***Response to Arguments***

Applicant's arguments filed 12/09/2008 have been fully considered but they are not persuasive. The examiner will address each argument/remark in turn.

Regarding Applicant's arguments/remarks with respect to claims 1, 18 and 34 on page 9, multiple coaxial cables (14) with corresponding antennas (18) that radiate microwave energy are disclosed by vanHooydonk. In order to radiate, a signal must be delivered to them, and the energy is alternating current having a frequency in the microwave range. Therefore, currents/signals propagate on each cable/antenna (14/18). As each antenna radiates energy in the form of electromagnetic waves an interference pattern is established.

Regarding Applicant's arguments/remarks with respect to claims 3 and 19 on page 9, last two paragraphs through page 10, 1<sup>st</sup> paragraph, the examiner has broadly interpreted the term "nesting" to broadly include any embodiment of device/probe 16 having more than one antenna 14/18 is nested as all the antennas are within one device/probe.

Regarding Applicant's arguments/remarks with respect to claims 2, 4, 6-8, 10, 11, 20-29, 36-38, 40 and 41 on page 10 2<sup>nd</sup> full paragraph, Applicant's argument is not persuasive as non of the independent claims 1, 3, 18, 19 or 34 are allowable.

**The rejections are maintained and this action is made FINAL.**

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Roane whose telephone number is (571) 272-4771. The examiner can normally be reached on Monday-Thursday 8:30AM-7PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Johnson can be reached on (571) 272-4768. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron Roane/  
Examiner, Art Unit 3769

/Henry M. Johnson, III/  
Supervisory Patent Examiner, Art Unit  
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